MDT
Montana Department of Transportation
2701 Prospect Avenue
PO Box 201001
Helena MT 59620-1001
Michael T. Tooley, Director
Steve Bullock, Governor

December 11, 1013

BJ Grieve
Flathead County Planning & Zoning Office
1035 1st Ave West
Kalispell, MT 59901


Subject: Floodplain Permit Variance Request
FDP-12-04
Kalispell West
NH-BR 1-2(113)114
CN: 4773

BJ,

This is a request for a variance under Section 1.11 of the June 18, 2013 Flathead County Floodplain and Floodway Management Regulations.

We have met all of the requirements of the regulations for this project except Section 5.03 C.2. That states that "The bottom of bridge spans has a freeboard of at least two (2) feet above the BFE;" Our plans show that the west bridge at station 20+89 has a low beam that varies from 1.6' to 1.9' above the base flood elevation. The base flood elevation at the upstream face of the bridge is 3152.1. The east bridge has 2.28' of freeboard and does not require a variance.

We are requesting a variance for the westerly Ashley Creek bridge due to the following:

- There is very little risk of ice or debris.

- The proposed bridge will have a higher low beam elevation than the existing bridge and will reduce the base flood elevation.
    - The existing west bridge low beam elevation is 3152.8
    - The proposed west low beam elevation is 3153.7

- Our project has been designed in accordance with Federal Highway Administration Policy FHWA 23CFR650A, which requires our analysis to be supported by review of design alternatives with consideration given to capital costs and risks as well as other economic, engineering (including floodplains),

social and environmental concerns. It also states that "Freeboard shall be provided, where practicable, to protect the bridge structures from debris- and scour related failure.

- Based on maintenance history there are no documented ice or debris issues at this bridge.

- We're very confident with the proposed bridge since it provides a much larger waterway opening than the existing bridge, spans the entire channel and in the unlikely event that debris hangs up on the bridge MDT maintenance crews will remove it.

- The right of way for the project has been purchased, the plans are complete, and we working toward an April 2014 letting.

The following are responses to items in Section 1.11C:

a. There is a good and sufficient cause; *Yes, please refer to the bullet points above.*

b. Failure to grant the variance would result in exceptional hardship to the applicant; *The proposed beam elevation is based on a complex combination of constraints. These constraints include roadway vertical alignment, right of way, geotechnical, avoidance of an existing drain field and providing a clear span (no piers) bridge opening. Redesigning the vertical alignment will compromise one or all of these constraints.*

c. There are no basements nor residential dwelling that has the lowest floor elevation below the Base Flood Elevation; *NA*

d. Crawl spaces are no more than two (2) feet below the exterior lowest adjacent grade and must have an inside dimension from interior ground to the bottom of the living floor of less than five (5) feet. The crawl spaces must meet the dry flood proofing requirements in Section 5.03(M)(3); *NA*

e. Granting of a variance will not result in increased flood heights to existing insurable buildings, additional threats to public safety, extraordinary public expense, create nuisances, cause fraud on or victimization of the public, or conflict with other existing local laws or ordinances; *Increasing the low beam elevation will not change flood heights. The proposed project will not increase flood heights.*

f. The proposed use is adequately flood proofed; *The bridge is designed to withstand a 500-year flood.*

g. The variance is the minimum necessary, considering the flood hazard, to afford relief; *Yes*

h. Reasonable alternative locations are not available; *No.*

i. There is no danger to life and property by water that may be backed up or diverted by the obstruction or use; *Correct, the proposed bridge has 0.04' less backwater than the existing bridge. There are no existing flooding issues with this bridge.*

j. There is no danger that the obstruction or use will be swept downstream to the injury of others; *The bridge beams will be connected to the abutments and cannot be swept downstream.*

k. Incorporates measures in the construction or alteration of the obstruction or use that lessens the danger; *The bridge provides a much larger opening than the existing bridge.*

l. The permanence of the obstruction or use; *The bridge has a design life of 75 years and will be used by the traveling public.*

m. There is no adverse affect to anticipated development in the foreseeable future of the area that may be affected by the obstruction or use; *There will be no adverse affect.*

n. There is no adverse affect to existing properties or structures; *There will be no adverse affect. The base flood elevation will not be increased with this project.*

o. Any increase to the Base Flood Elevation in a Floodway has been approved by FEMA for flood insurance purposes and any increase to the Base Flood Elevation in the Floodway or Flood Fringe of more than 0.5 feet is an alteration of the Regulated Flood Hazard Area has been duly amended pursuant to Section 1.13; *NA*

p. That the Montana Department of Natural Resources and Conservation (DNRC) has considered and provided comments, based on technical review. *No comments were received from the DNRC.*

The $500 variance fee will be sent under separate cover. If you have any questions or require additional information please call me at 444-7654.

Ken C Yahvah

K.C. Yahvah, P.E.
Missoula District Hydraulics Engineer

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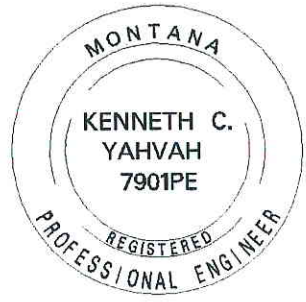


Copies: Kent Barnes, P.E.
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Highways File

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